

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

IN THE CLAIMS:

1. (original) A method for operating a receiver to receive data from a transmitter across a wireless link, the method comprising:

receiving, by a physical layer operating on the receiver, a physical layer frame from the transmitter across the wireless link, wherein receiving the physical layer frame includes:

5 determining whether the physical layer frame is error free;

when the physical layer frame is error free, acknowledging to the transmitter a successful receipt, extracting a packet data unit from the physical layer frame, and passing the packet data unit to a link layer operating on the receiver; and

10 when the physical layer frame is not error free, negatively acknowledging to the transmitter a successful receipt; and

receiving, by the link layer operating on the receiver, a packet data unit, wherein receiving the packet data unit includes:

determining whether a packet data unit is lost; and

15 when the packet data unit is lost, delaying an automatic retransmission request for a lost packet data unit for a delay period corresponding to an error recovery operation at the physical layer for the lost packet data unit.

2. (currently amended) The method of claim 1, wherein the delay period corresponds to N retransmission attempts by the physical layer to successfully receive a physical layer frame
20 containing the lost packet data unit, and wherein N is an integer.

3. (original) The method of claim 1, wherein:
the transmitter is a base station; and

the receiver is a mobile station.

4. (original) The method of claim 1, wherein:

the transmitter is a mobile station; and

5 the receiver is a base station.

5. (original) The method of claim 1, wherein determining whether a packet data unit is lost includes comparing the sequence number of a received packet data unit to the sequence number of an expected packet data unit.

10

6. (currently amended) A method for operating a transmitter to transmit data to a receiver across a wireless link, the method comprising:

passing a packet data unit from a link layer operating on the transmitter to a physical layer operating on the transmitter;

5 packaging the packet data unit into a physical layer frame;

transmitting the physical layer frame to a receiver across the wireless link;

awaiting an indication of successful receipt of the physical layer frame from the receiver;

when an indication of a successful receipt of the physical layer frame is not received, initiating retransmission of the physical layer frame;

10 if the indication of successful receipt of the physical layer frame is not received after at least one a preselected number of retransmission attempts, notifying the link layer that the packet data unit is lost;

delaying link layer recovery operations for the lost packet data unit until the link layer determines that plurality of retransmission attempts of the physical layer for the lost packet data unit

15 have been unsuccessful; and

the link layer initiating error recovery operations for the packet data unit that is lost after determining that the plurality of retransmission attempts of the physical layer for the lost packet data unit have been unsuccessful.

20 7. (original) The method of claim 6, wherein N-1 retransmission attempts of the physical layer frame are attempted, and wherein N is an integer.

8. (original) The method of claim 6, wherein:

the transmitter is a base station; and

the receiver is a mobile station.

9. (original) The method of claim 6, wherein:

the transmitter is a mobile station; and

5 the receiver is a base station.

10. (original) The method of claim 6, wherein the link layer comprises a radio link protocol layer.

10 11. (original) A wireless receiver that operates to receive data from a wireless transmitter across a wireless link, the wireless receiver comprising:

an antenna;

a radio frequency unit coupled to the antenna; and

15 at least one digital processor coupled to the radio frequency unit that executes software instructions causing the wireless receiver to:

receive a physical layer frame from the wireless transmitter across the wireless link, wherein receiving the physical layer frame includes:

determining whether the physical layer frame is error free;

20 when the physical layer frame is error free, acknowledging to the wireless transmitter a successful receipt, extracting a packet data unit from the physical layer frame, and passing the packet data unit to a link layer operating on the wireless receiver; and

when the physical layer frame is not error free, negatively acknowledging to the wireless transmitter a successful receipt; and

receive, by the link layer operating on the wireless receiver, a packet data unit, wherein

receiving the packet data unit includes:

determining whether a packet data unit is lost; and

when the packet data unit is lost, delaying an automatic retransmission request for a lost packet data unit for a delay period corresponding to an error recovery operation at the physical layer for the lost packet data unit.

12. (currently amended) The wireless receiver of claim 11, wherein the delay period corresponds to N retransmission attempts by the physical layer to successfully receive a physical layer frame containing the lost packet data unit, and wherein N is an integer.

13. (original) The wireless receiver of claim 11, wherein determining whether a packet data unit is lost includes comparing the sequence number of a received packet data unit to the sequence number of an expected packet data unit.

14. (original) The wireless receiver of claim 11, wherein the link layer comprises a radio link protocol layer.

15. (original) The wireless receiver of claim 11, wherein:
the wireless receiver is a mobile station; and
the wireless transmitter is a base station.

16. (original) The wireless receiver of claim 11, wherein:
the wireless receiver is a base station; and
the wireless transmitter is a mobile station.

17. (currently amended) A wireless transmitter that operates to transmit data to a wireless receiver across a wireless link, the wireless transmitter comprising:

an antenna;

a radio frequency unit coupled to the antenna; and

5 at least one digital processor coupled to the radio frequency unit that executes software instructions causing the wireless receiver transmitter to:

cause a link layer operating thereon to pass a packet data unit from a link layer operating thereon to a physical layer operating thereon;

cause the physical layer to package the packet data unit into a physical layer frame;

10 cause the physical layer to transmit the physical layer frame to the wireless receiver across the wireless link;

cause the physical layer to await an indication of successful receipt of the physical layer frame from the wireless receiver;

15 when an indication of a successful receipt of the physical layer frame is not received, cause the physical layer to initiate retransmission of the physical layer frame;

cause the link layer to delay error recovery operations for the packet data unit until the link layer determines that error recovery for the physical layer frame containing the packet data unit have been unsuccessful;

20 if the physical layer does not receive an indication of successful receipt of the physical layer frame is not received after at least one a preselected number of retransmission attempts, cause the physical layer to notify the link layer that the packet data unit is lost; and

cause the link layer to initiate error recovery operations for the packet data unit that is lost only after determining that error recovery for the physical layer frame containing the packet data unit have been unsuccessful.

18. (original) The wireless transmitter of claim 17, wherein N-1 retransmission attempts of the physical layer frame are attempted, and wherein N is an integer.

5 19. (original) The wireless transmitter of claim 17, wherein the link layer comprises a radio link protocol layer.

20. (original) The wireless transmitter of claim 17, wherein:
the wireless transmitter is a base station; and
10 the wireless receiver is a mobile station.

21. (original) The wireless transmitter of claim 17, wherein:
the wireless transmitter is a mobile station; and
the wireless receiver is a base station.

15